Analyst Insight





April 2012

KXEN Customers Achieve Rapid Model Development and Precise Targeting

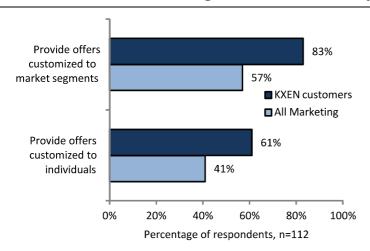
Marketers are feeling the heat. Aberdeen's September 2011 research into marketing (*Analytics for the CMO*) found the top two pressures faced by marketers were delivering higher quality leads, and demonstrating a return on marketing investments. Predictive analytics can address both concerns. Aberdeen's January 2012 research (*Predictive Analytics for Sales and Marketing: Seeing Around Corners*) found that marketing organizations using predictive analytics saw a 76% higher click-through rate, and almost twice the sales lift, than marketers that did not use this technology.

This research is based on a separate data set, collected in January 2012, investigating best practices for improving marketing performance with predictive analytics (see sidebar). In total, 112 marketing organizations took part in Aberdeen's survey; and 38 used KXEN as their primary solution. This Analyst Insight compares the performance of those 38 KXEN customers to other marketing organizations.

Better Marketing from Better Segmentation

Compared to other marketing organizations, KXEN customers are more capable of making customized offers than their peers (Figure 1).

Figure I: KXEN Customers can Target Offers More Precisely



Source: Aberdeen Group, January 2012

In particular, KXEN users are 50% more likely to be able to customize offers for individuals compared to marketing respondents as a whole (61% vs. 41%). This ability to address target markets with such precise focus - a target segment of one - can help improve the response rates to marketing

Analyst Insight

Aberdeen's Insights provide the analyst's perspective on the research as drawn from an aggregated view of research surveys, interviews, and data analysis

Defining Leaders & Followers

Aberdeen's research, Divide & Conquer: Using Predictive Analytics to Segment, Target and Optimize Marketing, measured the overall performance and effectiveness of marketing organizations that participated in our survey, based on their aggregate performance on 4 criteria. The top performing 35% of companies (Leaders) were segmented from the remaining 65% (Followers) using the four criteria below. The relative performance of Leaders and Followers is also shown:

- Average uplift from a marketing campaign -Leaders 6.7%, Followers 3.3%
- √ Year-year change in the average value of a sales transaction - Leaders 13% increase, Followers 2% decline
- √ Year-year change in customer retention rate -Leaders 4% increase,
 Followers 1% increase
- ✓ Year-year change in operating profit margin -Leaders 3% increase,
 Followers 0% change

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campaigns. This can also help reduce opt-out rates. Aberdeen's January 2012 data shows that organizations that were able to provide offers customized for individuals enjoyed a marketing response rate 75% higher than those that could not. A predictive model can tease out nuances that differentiate individual customers' tastes and needs, offering a more powerful approach to marketing.

Case Study - E.ON UK

E.ON is one of the UK's leading power and gas companies (generating electricity, and retailing power and gas) and is part of the E.ON group, one of the world's largest investor-owned power and gas companies, with 79,000 employees worldwide. E.ON supplies power and gas to over five million domestic, small, and medium-sized enterprise and industrial customers in the UK, and employs 12,000 people.

E.ON has used predictive technologies for almost five years and currently uses about 20 predictive models to support a variety of marketing activities, including:

- Customer acquisition, by predicting the likelihood someone will respond to an outbound marketing offer. Models are also used to predict the value of the sale if successful
- Customer retention, through propensity models that identify existing customers who are likely to churn
- Upsell and cross-sell: while electricity and gas are the core products at E.ON UK, central heating servicing and micro-generation products are also sold and predictive analytics is used to target marketing offers
- Promoting energy efficiency to low-income groups

The company has found data mining a cost-effective way to conduct marketing, because it helps them target marketing funds better. Some outbound campaigns have generated significant uplift compared to the control group. One of the keys to success has been the relatively low level of technical expertise required to create predictive models. "We've been able to build a number of models quickly, with quite a small team, who don't have PhDs in statistics," notes Ryan Cotton, Head of CRM at E.ON UK. Partly, this was possible due to automated support within the modeling tool. "We use analysts to build models; people who have both an excellent understanding of the data and an understanding of the business. They're not pure marketers and have good technical skills - but they're not pure statisticians." In addition to structured data, E.ON uses text analytics to understand their customers. For example, analysis of unstructured data helps E.ON understand when customers are likely to leave for another supplier.

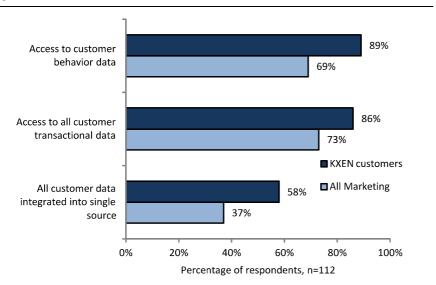
The most challenging area for E.ON is data preparation; understanding how data should be structured. "The quality of the model is only as good as the quality of the data that you have," notes Cotton. "Understanding the business requirement, understanding the data, and reviewing results are the bits that can't really be automated."



Data is the Fuel

Precise offer targeting requires more than just technology and process. It can't be done without data to fuel the model. KXEN users can target offers precisely in part because they have more complete and comprehensive access to data compared to other marketing organizations (Figure 2).

Figure 2: Better Access to Data



"To a large extent, the quality of the model is only as good as the quality of the data that you have."

> ~ Ryan Cotton, Head of CRM, E.ON UK

Source: Aberdeen Group, January 2012

KXEN customers are almost 30% more likely to have access to behavioral data on their customers than other marketing organizations. Behavioral data may be captured as part of a call center dialog, or a click stream as a customer navigates a website. Clickstream data can provide information on the search terms - or paid advertisement - an individual used to find a website, how they navigated around that website after they arrived, what pages they viewed, and how long they dwelt on each. For a wireless service provider, this kind of information can be pure gold. Clickstream data could indicate whether a visitor looked at feature-phones or smart-phones, whether they lingered over pay-as-you-go services or data plans, and so on. While potentially valuable, harnessing clickstream data does present a growing challenge for many organizations. Aberdeen's recent research into big data (In-memory Computing: Lifting the Burden of Big Data) found that 74% of survey respondents believed that it was important to address clickstream data as part of their big data initiatives. That said, clickstream and other behavioral data can help generate relevant marketing offers in real-time, or feed into an offline marketing campaign, like direct mail outreach.

KXEN customers also have slightly better access to transactional data than their peers. Included in the scope of transactional data would be information on the purchase history of existing customers, for example. Transactional data can provide a strong foundation for market basket analysis, and aid in

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identifying cross-sell and up-sell opportunities. Customer data concentrated into a single, centralized repository can then be leveraged to give the entire enterprise a consistent view of the customer. The richer data KXEN users enjoy can lead to more precise models, and improved business performance. Rich data sources can also help marketers target offers more precisely.

Case Study - BMO Bank of Montreal

Established in 1817, BMO Financial Group serves more than 12 million personal, commercial, corporate and institutional customers in North America and internationally. The group provides a broad range of retail banking, wealth management and investment banking products through three operating groups, including personal and commercial banking, which operates through BMO Bank of Montréal in Canada.

The retail banking group at Bank of Montréal has used predictive modeling software for several years to assist cross-selling, up-selling, and next best offer. About five years ago, BMO introduced KXEN. "We needed to build models more quickly, and we had difficulty finding people who were skilled with the existing tool that we had," noted David MacFarlane, Senior Manager in Customer Insight and Decision Support, Bank of Montreal. "We were looking for a tool that would let relatively junior analysts build something quickly." BMO found KXEN to be a more accessible tool, which helped them cut the development time of a predictive model by a couple of weeks.

Currently, BMO uses about 40 models for outbound offers and inbound offers. The models' source data is drawn from the bank's Customer Relationship Management (CRM) system, which includes data on product holdings and checking account cash flow information, as well as credit card data. MacFarlane attributes success to the use of control groups and open communication with business managers. "Without a well-chosen control group, it's hard to isolate how much lift has come from the analytics," he notes.

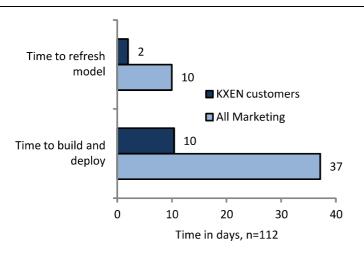
Model Productivity

Productivity matters. All things being equal, the faster a company develops and refreshes predictive models, the faster it can improve marketing performance. Organizations that use KXEN software to build and maintain predictive models are far more productive than their peers (Figure 3).

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Figure 3: KXEN Customers Build and Refresh Models Faster



"We needed to build models more quickly, and we had difficulty finding people who were skilled with the existing tool that we had."

> ~ David MacFarlane, Senior Manager in Customer Insight and Decision Support, Bank of Montreal

Source: Aberdeen Group, January 2012

How are these productivity gains possible? We asked survey respondents to estimate how they split the time dedicated to predictive modeling across five major predictive modeling activities (Table 1).

Table I: Where the Time Goes in Predictive Analytics Models

Activity	Percentage of Total Development Cycle
Problem Definition	21%
Data Preparation	28%
Build Model	23%
Deploy Model	I4%
Review Results	I4%

Source: Aberdeen Group, January 2012

Data preparation and model building were the most time-intensive activities; just over half (51%) of the overall predictive analytics development cycle was devoted to these tasks. Data preparation involves identifying source data, cleansing and normalizing that data to ensure it is coherent, and refining or transforming that data to make it suitable for use in predictive models. This is a very time-consuming task. Aberdeen's January 2012 research, Data Management for BI, found that it takes an average of 70 days for an organization to integrate a new data source into a business intelligence solution.

One of the reasons that KXEN customers can build predictive models so much faster than other companies is the greater degree of automation they have for data preparation and model building (Figure 4).

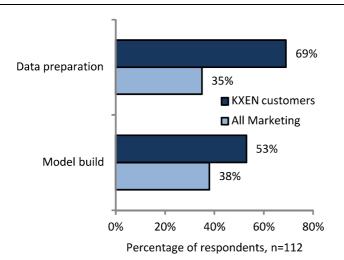
Fast Facts

- $\sqrt{84\%}$ of KXEN customers have staff dedicated to building predictive models
- $\sqrt{}$ Only **53**% of marketing organizations as a whole have this same degree of focus

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Figure 4: Mostly or Fully Automated Tasks



"Understanding the business requirement, understanding the data, and reviewing results are the bits that can't really be automated."

~ Ryan Cotton, Head of CRM, E.ON UK

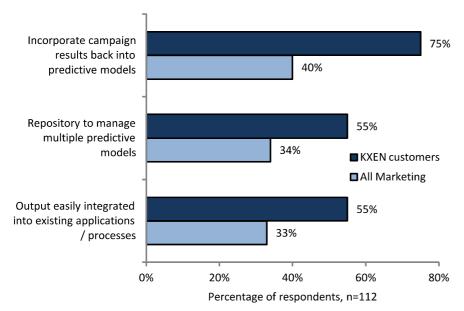
Source: Aberdeen Group, January 2012

KXEN users are twice as likely as other marketing organizations (69% vs. 35%) to have mostly or fully automated data preparation processes. Manual data preparation is time intensive for a few reasons: first, it is labor intensive. Fingers are just not as fast as CPUs at repetitive tasks. Second, much of the manual work is detailed, fiddly, and error-prone. The errors cause delays and rework, lengthening the development cycle. Automation reduces errors and as a result accelerates the model development cycle.

Just over half (53%) of KXEN customers also report they have substantial automated support for creating predictive models. The widespread use of predictive analytics has been hampered by the high levels of both statistical and programming knowledge required. Forty-five percent (45%) of survey respondents identified these skill requirements as a barrier to the use of predictive analytics. General-purpose computer programming has already worn this path. Over time, computer programming moved from machine code, to assembly code, to third-generation languages like COBOL, and on to development environments with graphical interfaces. With each successive generation, software developers needed to know less about the underlying computer hardware, and found that advanced languages offered more support for tackling business problems. In this way, the complex, labor-intensive and error-prone task of mapping business problems to machine code became automated. Predictive analytics is on a parallel path. Modern predictive modeling tools successfully hide the arcane statistical algorithms at the heart of models. Solutions may also include templates that serve as the building blocks for common marketing applications. These templates can help personnel construct predictive models faster, with less knowledge of statistics and algorithms. Modelers can focus on finding the best solution for the business problem at hand, not the coding and formulae necessary to program that solution.



Figure 5: Additional Drivers of Marketing & Modeling Productivity



Source: Aberdeen Group, January 2012

Other, more subtle factors also serve to improve productivity - both of the modeling process and the process of marketing (Figure 5). Fifty-five percent (55%) of KXEN customers use a repository to manage their predictive models, compared to 34% of other marketing departments. Storing models in a library or repository encourages reuse. For example, existing models can be used as the starting point for new projects. Modifying and tweaking an existing model to solve a new marketing problem can reduce the total time required to develop a model. This type of library can help to propagate best practices in predictive analytics across the organization, by providing an easily accessible store of knowledge.

Predictive models must also be easy to integrate with existing applications or business processes. Insights and findings generated by a predictive model are rarely used in isolation. Instead, the findings are incorporated into an existing business process or application. In marketing applications, for example, the outputs from models are used to ensure the right people receive the right offers at the right time. For that to happen, the model's findings must be fed into some other system — such as an email scheduling solution — which will deliver the intended offers. If that integration is cumbersome, then the marketing cycle will take longer to complete. Fifty-five percent (55%) of KXEN customers find this integration easy, compared to 33% of other marketing departments.

Marketing can also be made more precise by closing the analytical loop — by feeding marketing campaign results back into the development cycle and using them to refine predictive models. Marketers using KXEN are 88% more likely than other marketing organizations to have this feedback step in

"The success of the retention program isn't just in building analytics. It's mainly due to reshaping operations so that business managers can take advantage of the insights from analytics at critical touch points with the customer."

~ Derlin Mputu Kinsa, Senior Manager, Corporate Strategy and Business Intelligence, Wolters Kluwer

Fast Facts

The most common obstacles to the adoption of predictive analytics:

- √ Lack of understanding of the benefits - 57%
- √ Lack of appropriate skills 45%
- √ Data that could be used with predictive analytics is not clean - 39%



place. This can lead to a virtuous cycle, where marketing performance improves with each successive marketing campaign.

Case Study - Wolters Kluwer

Wolters Kluwer is a global provider of information, software, and services that help professionals do their work quickly and efficiently. For 175 years, Wolters Kluwer has given professionals necessary information in the fields of legal, business, tax, accounting, finance, audit, risk, compliance, and healthcare. The company employs about 19,000 employees in over 45 countries, and has customers in more than 147 countries. Annual revenues for 2010 were just over €3.5 billion.

Wolters Kluwer has been using predictive analytics to drive improvements in customer retention for three years. Three years ago, the company decided to launch a fact-based customer retention program in Europe. After the project succeeded in Europe, the initiative expanded in two ways: the program grew to include the United States, and its scope expanded to embrace the entire customer lifecycle, including lead generation, customer acquisition, and customer development — cross-selling and up-selling.

The program began with a straightforward analysis of which segments of the customer base had the highest rates of defection. Findings from this study let Wolters Kluwer identify at-risk customers, and distill the key events that led to customer defection.

For example, many cancellations occurred at the seed phase during customer acquisition. In response, Wolters Kluwer focused on improving customer targeting so that prospects were not offered products that were unsuitable for them. The company also fine-tuned the customer on-boarding process to include a thorough introduction to the product, and a series of touch points during the introductory phase. "Analysis was just the beginning, it helped us to identify where we needed to focus," noted Derlin Mputu Kinsa, Senior Manager of Corporate Strategy and Business Intelligence at Wolters Kluwer. "But changes to the organization and to business processes are necessary to benefit from the findings of the analysis."

Now, Wolters Kluwer continues to work with customers once they are up and running with the firm's products. The firm uses a different approach depending on the value of the customer, the products they have, and the way they use those products. Based on the data Wolters Kluwer collects and the insights they gain, they may offer the customer alternative products, or additional training and workshops to help them realize the full value of their existing subscription. Predictive analytics is also used to keep customers from defecting. The firm uses predictive analytics to identify dissatisfied customers and determine what offer or action will maximize the odds that they will keep the customer. In the long term, analysis of canceled subscriptions is used to shape product development and pricing strategy.

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Case Study - Wolters Kluwer

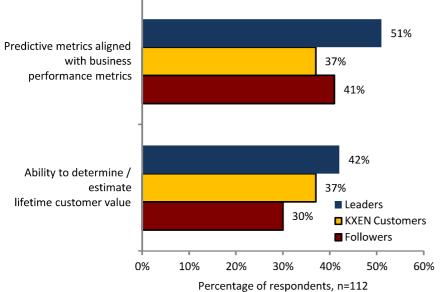
"This retention process has become a key part of our business. In one division last year, we improved retention by 1%. That may not sound like much, but when the product portfolio is very large, it adds up to a lot of money," concluded Derlin Mputu Kinsa. "The success of the retention program isn't just in building analytics. It's mainly due to reshaping operations so that business managers can take advantage of the insights from analytics at critical touch points with the customer."

How KXEN Customers Can Raise Their Game

Figure 6: Areas Where KXEN Customers Can Improve

Despite their performance at building models and targeting marketing offers, KXEN customers can improve their performance further in a few areas (Figure 6).

Predictive metrics aligned



Source: Aberdeen Group, January 2012

KXEN users trail Leaders (the top performing 35%) from Aberdeen's January 2012 research in their ability to determine - or estimate - lifetime customer value. Models that optimize marketing response rates can be powerful, but they may also be optimized for short-term gains at the expense of long-term benefits. For example, subscription services (such as telephone or television) often entice new customers with discount rates for the first few months of a new subscription. While that may attract new customers, are people recruited by steep discounts good customers in the long run? Or will they defect for the next discount that comes along?



By calculating lifetime customer value, marketing organizations can better understand the ROI of their marketing programs. These calculations can feed back into marketing models to allow them to account for the customer's maximize lifetime value for the organization, rather than a short-lived increase in sales.

The potential use of customer lifetime value as a metric also highlights the alignment that needs to occur between two classes of metrics. The performance and efficiency of the predictive model (including measures like marketing response rates and opt-out rates) must be aligned with business performance (measured by metrics like sales revenue and profitability). A strong predictive model can deliver improved marketing response rates. But, if increased responses lead to unprofitable business, what is the true value of the model? Alignment and synchronization between predictive metrics and business metrics is key. Compared to other marketing organizations that took part in Aberdeen's survey, KXEN users are relatively weak in this respect. Only 37% of KXEN customers align predictive metrics to business metrics, compared to 51% of marketing Leaders.

Key Takeaways

Aberdeen's research into KXEN customers found that:

- KXEN customers can target their marketing more precisely than other marketers. They are more likely to be able to customize offers for market segments and individuals, due in part to their ability to tap into richer and more complete data sources. High-quality data is the foundation upon which any successful predictive analytics model is built.
- **KXEN** customers are able to build and refresh models much quicker than others. Users of KXEN software can refresh their models 5-times faster than other organizations. Similarly, they are able to build and deploy new models in less than a third of the time. This performance is underpinned by the degree of automated support offered for both data preparation and model building.
- KXEN users could benefit by developing a more comprehensive approach to measuring marketing performance. KXEN customers trail their peers in their use of predictive analytics. They are less likely to calculate lifetime customer value. They are also wanting in their ability to connect the performance of the predictive model to the performance of the business. Only 37% of KXEN customers are able to do this, compared to 45% of survey respondents overall. By addressing these deficiencies, KXEN customers should realize further gains.

For more information on this or other research topics, please visit www.aberdeen.com

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Related Research

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January 2012

<u>Customer Experience Management:</u>
<u>Using the Power of Analytics to Optimize</u>
<u>Customer Delight;</u> January 2012

Sales Performance Management: How the Best-in-Class Optimize the Front Line to Grow the Bottom Line; December 2011

The Marketing Executive's Agenda for 2012; October 2011

Analytics for the CMO: How Best-in-Class Marketers Use Customer Insights to Drive More Revenue; September 2011

Predictive Analytics – Driving Sales with

Customer Insights; September 2010

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